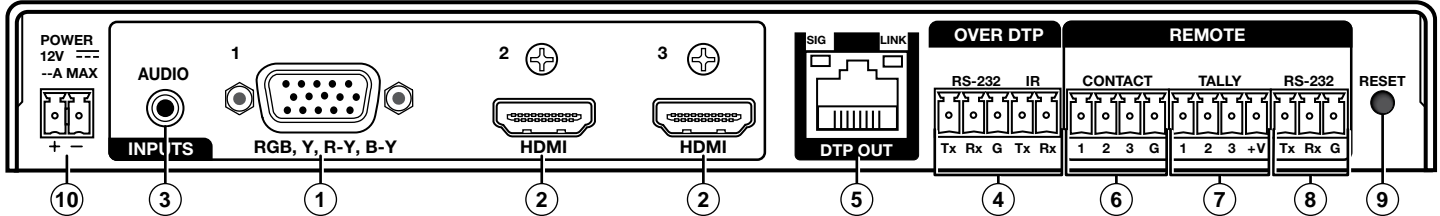


DTP T USW 233 • Setup Guide

This guide provides instructions for an experienced installer to set up and operate the Extron DTP T USW 233 switching video transmitter. The DTP T USW 233 transmitter switches among an analog video and two digital (HDMI) video inputs and, paired with a compatible receiver, can extend the selected signal up to 230 feet (70 m). If the selected input is HDMI, the extended video signal is HDCP-compliant.

IMPORTANT:
Go to www.extron.com for the complete user guide, installation instructions, and specifications before connecting the product to the power source.



Installation

Step 1 — Mounting

Turn off or disconnect all equipment power sources and mount the transmitter as required.

Step 2 — Making Connections

Inputs

- ① **Input 1 (RGB) connector** — Connect a VGA cable between this port and the VGA output port of the analog video source.
- ② **Input 2 and 3 (HDMI) connectors** — Connect HDMI cables between these ports and the HDMI output ports of the digital video sources.

NOTE: See the [LockIt® Lacing Brackets](#) on page 3 of this guide for to securely fasten the HDMI connectors to the transmitter.

- ③ **Audio input** — Connect an unbalanced stereo audio source to this 3.5 mm mini stereo jack for an analog audio input.

NOTE: Audio is not embedded in the HDMI signal; it is transmitted simultaneously and is present on all inputs.

Over DTP RS-232 and IR pass-through

- ④ **RS-232 and IR connector** — To pass serial or infrared data or control signals on the Over DTP RJ-45 output, connect the controlling device to the transmitter via the RS-232 and IR captive screw connector. Connect the device to be controlled to the receiver.

DTP output to receiver

- ⑤ **DTP RJ-45 connector** — Connect the transmitter DTP Out port to the DTP In port on the receiver. Extron recommends that you terminate both cable ends in accordance with the following specifications, at a minimum:
 - TIA/EIA T 568B
 - CAT 6a, shielded
 - 24 AWG, solid conductor

ATTENTION: Do not connect this device to a computer data or telecommunications network.

Signal LED — Lights when the unit is outputting a TMDS clock signal on the DTP output.

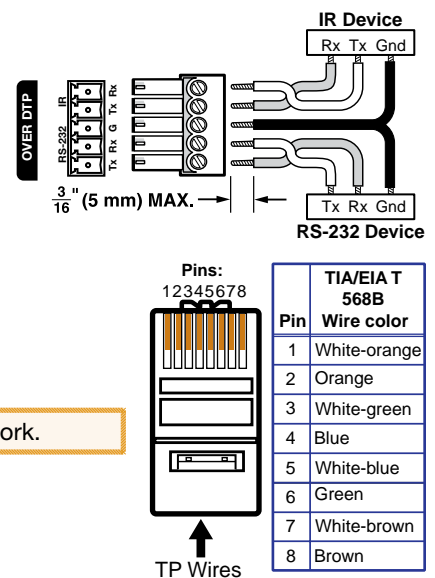
Link LED — Lights when a valid link is established between the units on the DTP cable.

Remote control

- ⑥ **Remote Contact port** — If desired, for contact closure control, plug a locally-constructed contact closure control device into this 3.5 mm, 4-pole captive screw port. Momentarily short the pin for the desired input (1, 2, or 3) to G to select that input. To force an input to be always selected, leave the short in place.

NOTES:

- Contact closure control overrides front panel input selections.
- For contact closure control, auto-input switching mode must be off (see [Selecting the switch mode](#) on the next page).

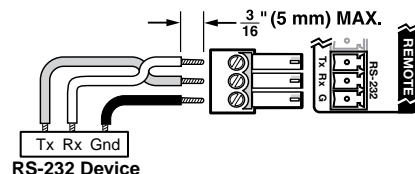


DTP T USW 233 • Setup Guide (Continued)

- ⑦ **Remote Tally port** — If desired, to remotely identify the currently selected input, plug a locally-constructed device into this 3.5 mm, 4-pole captive screw connector. Connect the power wire for the device into the +V pin and connect the ground wire for the each indicator into the corresponding tally output pin: 1, 2, or 3.

When an input is selected, by either contact closure or front panel selection, the corresponding tally output pin shorts to ground, closing the circuit and lighting the connected indicator (LED).

- ⑧ **Remote RS-232 port** — Plug a serial RS-232 device into the switching transmitter via this rear panel 3.5 mm, 3-pole captive screw connector for remote control of the switching transmitter.



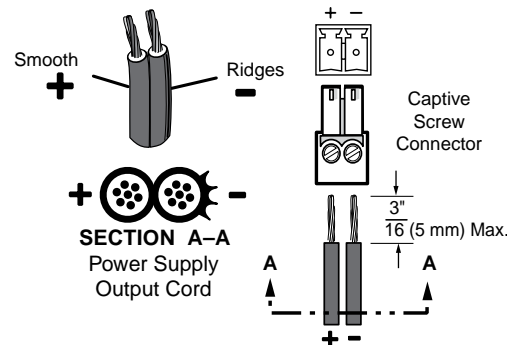
Reset button

- ⑨ **Reset button** — This button initiates two levels of reset. For different reset levels, use an Extron Tweaker or small screwdriver to press and hold the recessed button while the switcher is running or while applying power. See the *DTP T USW 233 User Guide*, available at www.extron.com, for details.

Power

- ⑩ **Power connector** — Connect an IEC power cord between the included 12 VDC power supply and a 100-240 VAC, 50-60 Hz source. Connect the power supply to either unit, transmitter or receiver, as shown at right. Use the included tie-wrap to strap the cord to the captive screw connector.

NOTE: Only one power supply is required. A single power supply connected to either unit in the pair powers both units. A power supply is included with the transmitter.



Front panel Configuration port

- ① **Configuration port** — Plug a PC or other controlling device into the switching transmitter via this front panel mini-USB connector for remote configuration of the switching transmitter.

Operation

Switching inputs

Select the desired input by pressing the associated input button. Observe that the LED for the selected input lights.

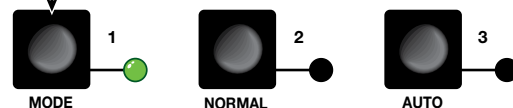
NOTE: The switcher must be in normal (manual) mode (see below).

Selecting the switch mode

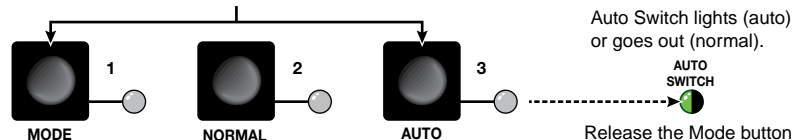
In auto-input switching mode, the switcher selects to the highest numbered input with a sync signal present. Turn auto-input switching mode on and off as follows:

1. Press and hold the Mode (Input 1) button.
2. Press and release the button for the desired mode:
Auto (Input 3) — The Auto Switch LED lights.
Normal (Input 2) — The Auto Switch LED goes off.
3. Release the Mode button.

Press the button.
The LED lights green.



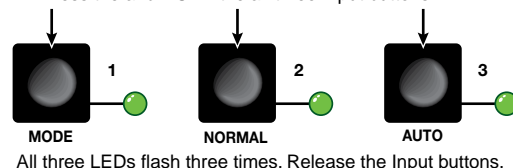
Press the and **HOLD** the Mode button.
Press and release the Auto or Normal button.



Locking and unlocking the front panel (Executive mode)

The switcher has a front panel lock feature that locks the front panel. If you try to make front panel input selections when the panel is locked, all front panel LEDs flash three times. Toggle the front panel lock on and off by pushing and holding all three Input buttons simultaneously for 5 seconds. All front panel LEDs flash three times. Release the buttons.

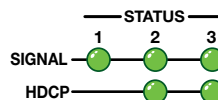
Press the and **HOLD** the all three Input buttons.



Interpreting the Status LEDs

Signal LEDs (1 through 3) — Indicate that the switcher detects horizontal sync (Signal LED 1) or TMDS clock (Signal LED 2 and Signal LED 3) signals on the associated input.

HDCP LEDs (2 and 3) — Indicate that the corresponding input signal is HDCP encrypted.



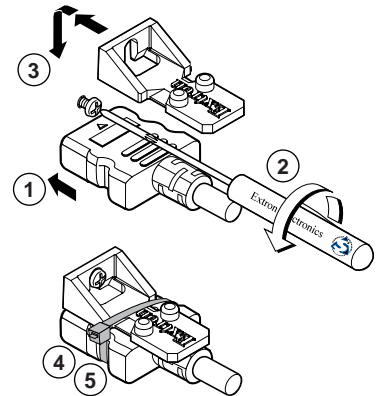
LockIt® Lacing Brackets

Use the included LockIt Lacing Brackets to securely fasten both HDMI cables as follows.

1. Plug the HDMI cable into the panel connection.
2. Loosen the HDMI connection mounting screw from the panel enough to allow the LockIt lacing bracket to be placed over it. The screw does not have to be removed.
3. Place the LockIt lacing bracket on the screw and against the HDMI connector, then tighten the screw to secure the bracket.

ATTENTION: Do not overtighten the HDMI connector mounting screw. The shield it fastens to is very thin and can easily be stripped.

4. Loosely place the included tie wrap around the HDMI connector and the LockIt lacing bracket as shown.
5. While holding the connector securely against the lacing bracket, use pliers or similar tools to tighten the tie wrap, then remove any excess length.



Application Diagram

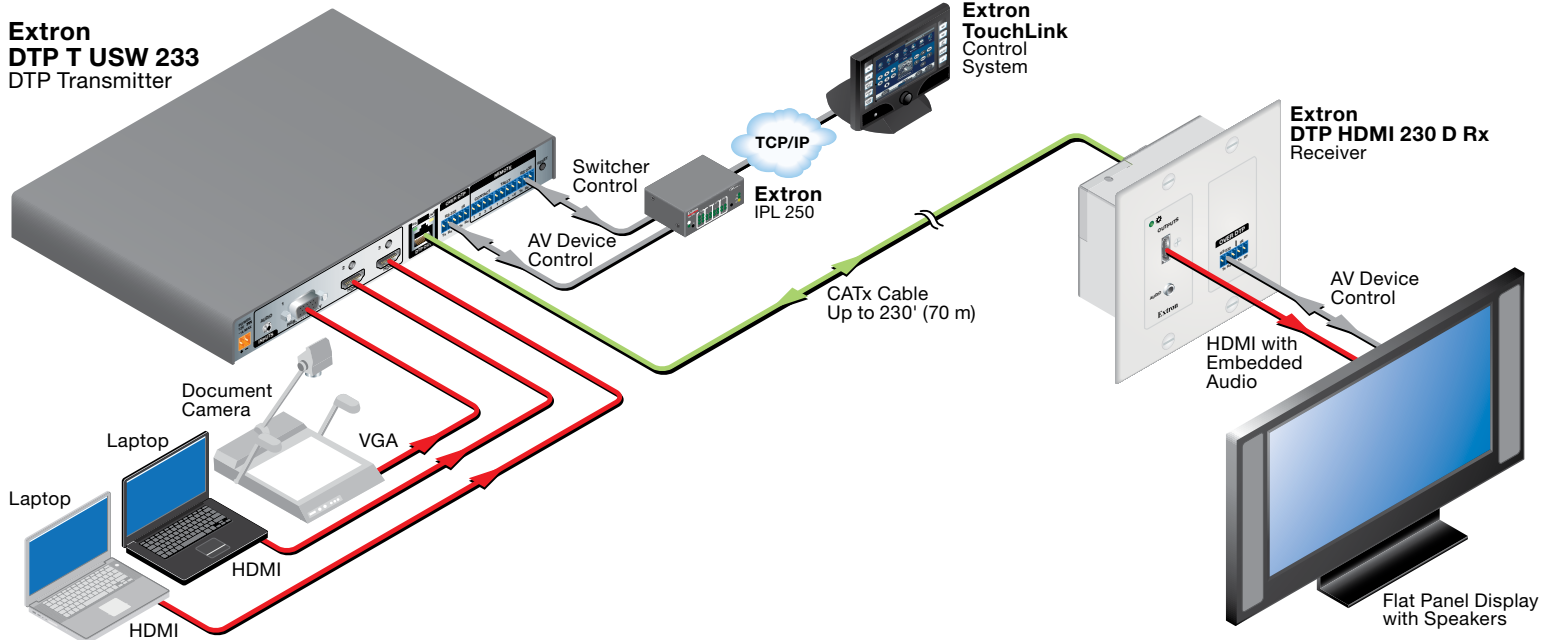


Figure 1. Typical Switching Transmitter Application

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Extron USA - West +1.714.491.1500 +1.714.491.1517 FAX	Extron USA - East +1.919.850.1000 +1.919.850.1001 FAX	+31.33.453.4040 +31.33.453.4050 FAX						